MARX 09/743,381

=> d his

FILE 'HOME' ENTERED AT 14:56:56 ON 28 OCT 2002

FILE 'HCAPLUS' ENTERED AT [illegible] ON 28 OCT 2002
E BERNEGGER AT
L1 10 S E4-E7
E ELLI AT
L2 [illegible] S E3-7
L3 [illegible] S BULIT [illegible] AT
L4 [illegible] S [illegible]SISHER [illegible] AT
L5 [illegible] S WERBITZKY [illegible] AT
L6 77 S L1-5
L7 5 S L6 AND ?AZABICYCLO?
L8 3 S L7 AND HYDROLAS?
SELECT RN L8 1-3

inventor search
3 citations, RN's were selected from ea. citation and searched in RegFile (47 cpd)

FILE 'REGISTRY' ENTERED AT 15:04:52 ON 28 OCT 2002
L9 47 S E45-95

FILE 'HCAPLUS' ENTERED AT 15:05:20 ON 28 OCT 2002
L10 3 S L8 AND L9

cpds are assigned to each citation; 3 cites w/ 47 cpds displayed

FILE 'REGISTRY' ENTERED AT 15:42:07 ON 28 OCT 2002
L11 24003 S NRS=1 AND (103.11.4 OR 16.127.2)/RID
L12 43407 S NRS<3 AND (103.11.4 OR 16.127.2)/RID

L12, creating a subset in which STR was searched; every cpd in this subset has 1-2 ring system; each cpd must have


or

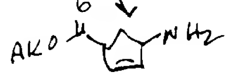

103.11.4/rid 16.127.2 rid

FILE 'LREGISTRY' ENTERED AT 15:48:21 ON 28 OCT 2002
L13 STR

FILE 'REGISTRY' ENTERED AT 15:49:49 ON 28 OCT 2002
50 S L13 SSS SAM SUB=L12
L14 1260 S L13 SSS FUL SUB=L12
1260 cpds in parent search
L15 SAVE TEMP L15 MARX91P/A
L16 498 S L15 AND 103.11.4/RID ← bicyclo ring
L17 762 S L15 AND 16.127.2/RID ←  ring
L18 191 S L17 AND NRS=1
NRS = # of ring systems
L19 26 S L18 AND "(HYDROXYMETHYL)"
L20 19 S L18 AND "METHANOL"
L21 45 S L19-20
L22 19 S L20 AND "AMINO"


II

L23 163 S L17 AND "METHANOL"

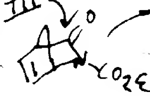


L24 70 S L18 AND "ESTER"
L25 96 S L18 AND "ACID"
L26 27 S L25 NOT L24


IV

III


L27 571 S L17 NOT L18
L28 [illegible] S L16 AND NRS=1
L29 [illegible] S L28 AND " 2-AZABICYCLO[2.2.1]HEPT-5-EN-3-ONE"
L30 [illegible] S L28 AND " 2-AZABICYCLO[2.2.1]HEPT-5-ENE-2-CARBOXYLIC ACID, 3-
L31 7 S L29 AND "ACETYL"
L32 2 S L28 AND " 2-AZABICYCLO[2.2.1]HEPT-5-ENE-2-CARBOXYLIC ACID, 3-
L33 18 S L29 NOT L30-31
L34 [illegible] S L27 NOT L28

III


FILE 'HCAPLUS' ENTERED AT [illegible] ON 28 OCT 2002
[illegible] > azabicyclos as reactants
[illegible] > cyclopentenes (II) as products
[illegible] > cyclopentenes (II) as reactant

rid = ring identifier

[illegible]

prep of [redacted] → NH2

= III → II

= II → IV

adding in relevant terms

L8 = inventors search results

L51 1 S L46 AND L50 1 cite

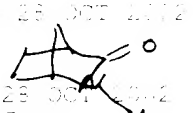
L52 1 S L46 NOT L51 1 cite

L53 0 S L48 AND (L50 OR RACEMIC OR RESOLUTION)

L54 1 S L48 NOT L53 1 cite

= III → IV

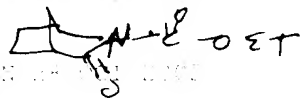
L56 1 S 162307-09-7/RN



FILE 'HCAPLUS' ENTERED AT 16:39:30 ON 29 OCT 2002

L59 13 S L56 13 cites for ↗

L60 1 S 255839-16-0/RN



FILE 'HCAPLUS' ENTERED AT 16:39:56 ON 29 OCT 2002

L61 1 S L60 1 cite only applicant

L62 9 S L59 NOT (L45-49 OR L51-54 OR L8) 9 cites

L63 0 S L61 NOT L45-49 OR L51-54 OR L8 no cites

FILE 'CASREACT' ENTERED AT 16:40:11 ON 29 OCT 2002

L64 STR

L65 2 S L64

L66 25 S L64 FUL 25 cites for enz or chemical transform.

SAVE L66 MARQUICH A

L67 4 S L66 AND (BIOLOGICAL OR ENZYM? OR SUBTILISIN OR PROTEASE OR P 4 cites for enz. rxn

STR for Reg / HCAPLUS

=> d que 134
[illegible]
16.11.2 TRI

L13 STR

4 X R B — Bond & nodes attached by the bond, are Ring or chain; allows for bicyclo cpds

← this STR gets all claimed cpds; it's the starting point for III & II

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RINGS ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STORED ATTRIBUTES: NONE
L15 1260 SEA FILE=REGISTRY SUB=L12 SSS FUL L13
L16 496 SEA FILE=REGISTRY ABB=ON PLU=ON L15 AND 1.3.11.4/RID
L28 117 SEA FILE=REGISTRY ABB=ON PLU=ON [illegible] AND NR>1
L29 25 SEA FILE=REGISTRY ABB=ON PLU=ON L28 AND " 2-ACABICYCLO[....]
HEPT-5-EN-3-ONE"
L30 7 SEA FILE=REGISTRY ABB=ON PLU=ON L29 AND "ACETYL"
L34 17 SEA FILE=HCAPLUS ABB=ON PLU=ON L30/RCT

Cas react

=> d que l67
L64 STR

looking for any rxn where this azabicyclo is a reactant.

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L66 45 SEA FILE=CASREACT SUB FUL L64 L61 REACTS IN
L67 4 SEA FILE=CASREACT ABB=ON PLU=ON L66 AND "BICYCLIC"/CA
ENZYME OR SUBTILISIN OR PROTEASE OR PEPTIDASE OR LIGASE OR
HYDROLASE

Inventor Search results

MARK [illegible]

[illegible]

L10 ANSWER 1 OF 3 HCAPLUS COPYRIGHT [illegible]

ACCESSION NUMBER: [illegible] HCAPLUS

DOCUMENT NUMBER: 132:[illegible]

TITLE: Preparation of optically active azabicycloheptenone derivatives by stereospecific enzymic hydrolysis

INVENTOR(S): Bernegger-Egli, Christine; Brux, Frank; Roduit, Jean Paul; Werbitzky, Oleg; Guggisberg, Yves

PATENT ASSIGNEE(S): Lonza A.-G., Switz.

SOURCE: PCT Int. Appl., [illegible] pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000003032	A1	20000120	WO 1999-EP4814	1999[illegible]
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AT [illegible]	A1	[illegible]	AT [illegible]	[illegible]
EP 1095160	A1	[illegible]	EP [illegible]	[illegible]
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002520027	T2	[illegible]	JP 2000-[illegible]	[illegible]
NO 2001000121	A	20010108	NO 2001-121	20010108

PRIORITY APPLN. INFO.:

EP 1998-112719	A	19980709
EP 1998-123949	A	19981217
WO 1999-EP4814	W	19990708

OTHER SOURCE(S): MARPAT 132:[illegible]

[illegible]

AB The invention relates to a biotechnol. method for producing optically active compds. of general formulas I and II, wherein R1 represents acyl or acyloxy, and R2 represents H or C1-C10 alkyl, by reaction of the racemic lactam using a **hydrolase** in the presence of a nucleophile and in the presence of a base in a const. pH range. The invention also relates to the subsequent conversion of compd. I into the optically active 1-amino-4-hydroxymethyl -2-cyclopentene of formula (III). Racemic 2-acetyl-2-**azabicyclo**[2.2.1]hept-5-en-3-one 419.75 mL was dild. with water 60 mL and a com. subtilisin soln. 11.7 mL. This soln. was brought to pH 7.5 and incubated at 2 .degree. with vigorous stirring. After 48 h (15,48 -2-Acetyl-2-**azabicyclo** [2.2.1]hept-5-en-3-one with an ee 99 was obtained. Final yield 1 purified product was 71 .

IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

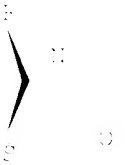
RN 162307-09-7 HCAPLUS

CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

IT 255839-18-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 255839-21-5P
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); PREP (Preparation)
(preparation of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis
RN [illegible]-21-5 HCAPLUS
CN [illegible]-Azabicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 3-oxo-, ethyl ester, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 49805-30-3DP, 2-Azabicyclo[2.2.1]hept-5-en-3-one, derivs. 112531-51-8DP, C2-12 alkyl esters 136522-35-5DP, derivs. 189098-29-1P 200002-40-0P 255839-19-1P
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis
RN 49805-30-3 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one (9CI) (CA INDEX NAME)

RN [illegible]-21-5 HCAPLUS
CN [illegible]-Azabicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 3-oxo-, ethyl ester, (1S,4R)- (9CI) (CA INDEX NAME)

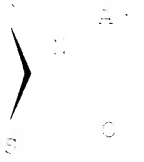
Absolute stereochemistry.

RN [illegible] HCAPLUS
CN [illegible], 4-amino-, [illegible] -

Absolute stereochemistry. [illegible] -

RN [illegible] HCAPLUS
CN [illegible], 2-acetyl-, [illegible] - (9CI) (CA INDEX NAME)

Absolute stereochemistry. [illegible] -

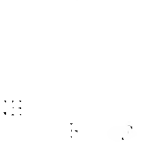


RN 260032-40-0 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN [illegible] HCAPLUS
CN [illegible], 4- acetylamino -, propyl ester, [illegible] -
[illegible] CA INDEX NAME

Absolute stereochemistry.



ANSWER [illegible]

67-56-1, [illegible], 71-23-8,
[illegible], 71-36-3, [illegible],
[illegible] 109-99-9, [illegible],
[illegible]

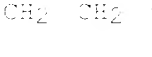
[illegible] azabicycloheptenone [illegible]

MARK [illegible]

stereospecific enzymic hydrolysis
RN [illegible] HCAPLUS
TI [illegible] INDEX NAME

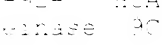
RN [illegible] HCAPLUS
TI [illegible] INDEX NAME

RN [illegible] HCAPLUS
TI [illegible] INDEX NAME



RN [illegible] HCAPLUS
TI Pyran, tetrahydro- [illegible] INDEX NAME

IT 9001-62-1, Lipase 9001-92-7, [illegible]
9014-01-1, Subtilisin 9074-07-1, Proteinase, Aspergillus
alkaline 37259-58-8, Serine Proteinase 39450-01-6
RL: CAT (Catalyst use); UNES (Uses)
(prepn. of optically active **azabicycloheptenone** derivs. by
stereospecific enzymic hydrolysis)
RN [illegible] HCAPLUS
TI Lipase, triacylglycerol (9CI) (CA INDEX NAME)



... STRUCTURE DIAGRAM IS NOT AVAILABLE ...
RN [illegible] HCAPLUS
TI Proteinase (9CI) (CA INDEX NAME)

... STRUCTURE DIAGRAM IS NOT AVAILABLE ...
RN [illegible] HCAPLUS
TI [illegible] INDEX NAME

... STRUCTURE DIAGRAM IS NOT AVAILABLE ...
RN [illegible] HCAPLUS
TI Proteinase, Aspergillus alkaline (9CI) (CA INDEX NAME)

... STRUCTURE DIAGRAM IS NOT AVAILABLE ...
RN [illegible] HCAPLUS
TI [illegible] INDEX NAME

... STRUCTURE DIAGRAM IS NOT AVAILABLE ...
RN [illegible] HCAPLUS
TI [illegible] INDEX NAME

MARX [illegible]

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 255839-20-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

RN 255839-20-4 HCAPLUS

CN Ethanone, 1-[(1R,4R)-4-amino-2-(hydroxymethyl)-1-cyclopenten-1-yl]- [illegible] (CA INDEX NAME)

Absolute stereochemistry.

IT ICM C12P041-00

ICS C12P017-10; C12P013-00; C12P013-02; C07C231-[illegible]

CC 16-5 (Fermentation and Bioindustrial Chemistry)

ST **azabicycloheptenone** deriv enzymic resoln proteinase lipase

IT Alcohols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(C1-10; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT Solvents

(aprotic; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT Resolution (separation)

(enzymic; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 162307-09-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 255839-18-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(enzymic resoln. of; prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 255839-21-5P

RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)

(prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 49805-30-3DP, 2-**Azabicyclo**[2.2.1]hept-5-en-3-one, derivs. 112531-51-8DP, [illegible] 136522-35-5DP, derivs. 189098-29-1P 200002-40-0P 255839-19-1P

RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. of optically active **azabicycloheptenone** derivs. by stereospecific enzymic hydrolysis)

IT 67-56-1, Methanol, [illegible] 71-23-8, [illegible] 71-36-3, [illegible]

studies 109-99-9, Tetrahydrofuran, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(prepn. of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)
IT 9001-62-1, Lipase 9001-92-7, Proteinase 9014-01-1, Subtilisin 9074-07-1, Proteinase, Aspergillus alkaline 37259-58-8, [illegible] 39450-01-6
RL: CAT (Catalyst use); USES (Uses)
(prepn. of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)
IT 255839-20-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)
REFERENCE COUNT: [illegible] THERE ARE [illegible] CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

[illegible]

L1 ANSWER [illegible] OF 3 HCAPLUS COPYRIGHT [illegible] ACS
ACCESSION NUMBER: [illegible] HCAPLUS
DOCUMENT NUMBER: [illegible]
TITLE: Multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol
INVENTOR(S): Bernegger, Christine; [illegible]; [illegible], [illegible] Mary; [illegible]; [illegible], Frank; [illegible]; [illegible]; [illegible], Pierre; [illegible]; [illegible], Laurent; [illegible]; [illegible]; Guggisberg, Yves
PATENT ASSIGNEE(S): Lonza AG, Switz.
SOURCE: Eur. Pat. Appl., [illegible] pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 878548	A2	19981118	EP 1998-[illegible]	1998051[illegible]
EP 878548	A3	19991013		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6156893	A	20001205	US 1998-73553	19980506
CA 2237297	AA	19981113	CA 1998-2237297	19980511
NO 9802149	A	19981116	NO 1998-2149	19980512
JP 11005793	A2	[illegible]	JP 1998-[illegible]	[illegible]
CN 1201794	A	[illegible]	CN [illegible]	[illegible]
US 6137007	A	[illegible]	US [illegible]	[illegible]
US 6252111	B1	[illegible]	US [illegible]	[illegible]
US [illegible]	B1	[illegible]	US [illegible]	[illegible]

PRIORITY APPLN. INFO.: CH 1997-[illegible] A [illegible]
CH 1997-[illegible] A [illegible]
US 1998-73553 A3 19980506
OTHER SOURCE(S): MARPAT 130:24137

AB A new procedure for the prepn. of (1S,4R)- (I) or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol (II) is claimed. [illegible]-2-**Azabicyclo**[2.2.1]hept-5-en-3-one is acylated at the amide NH and the compd. is cleaved to form the racemic acylamino cyclopentene deriv. This is stereospecifically deacylated by a biotechnol. process to produce (1S,4R)- or (1R,4S)-1-amino-4-hydroxymethyl-2-cyclopentene. A [illegible] step is the reaction with N-[illegible]-amino-4,6-dichloropyrimidine-5-yl)formamide to produce (1S,4R)- and (1R,4S)-4-[illegible]-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentene-1-methanol, which are cyclized to [illegible] I and II.

IT **9012-56-0P**, N-Acetylamino[illegible] **hydrolase**
[illegible]

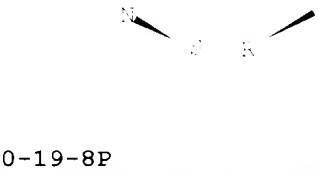
[illegible]

... [illegible] ...
IT **136522-33-3P 216481-88-8P**

RL: BMF (Biochemical manufacture); BPN (Biosynthetic preparation); CPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(multistep process for the prepn. of [1S,4R]- and [1R,4S]-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol)

RN 168960-18-7 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-(2-amino-6-chloro-9H-purin-9-yl)-, [1S,4R]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 216481-88-6 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-(2-amino-6-chloro-9H-purin-9-yl)-, [1R,4S]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT **168960-19-8P**
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of [1S,4R]- and [1R,4S]-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol)

RN 168960-19-8 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, [1R,4S]- (9CI) (INDEX NAME)

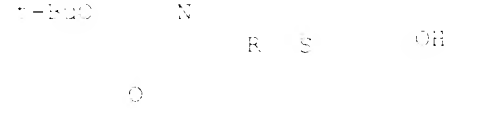
Absolute stereochemistry.

IT 130931-86-1P 168960-18-7P 171887-04-0P
216481-85-5P
RL: [illegible] (Biosynthetic preparation); [illegible] (Pharmaceutical use); PREP (Preparation); SPN (Synthetic preparation); BIOL (Biological activity); USES (Uses)
(multistep process for the prepn. of (1R,4S)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopenten-1-ylmethanol)
RN [illegible]
CN Acetamide, N-[9-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-6-[illegible]-9H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

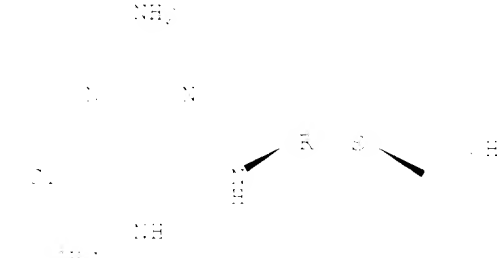
RN 168960-18-7 HCAPLUS
CN Carbamic acid, [(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



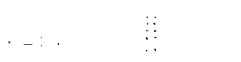
RN 171887-04-0 HCAPLUS
CN Formamide, N-[2-amino-4-chloro-6-[[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]amino]-5-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN [illegible]
CN Formamide, N-[9-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-6-[illegible]-9H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

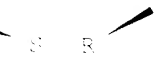


IT 136522-35-5P
PL: BPN (Biosynthetic preparation); PUR (Purification); PREP (Preparation); BIOL (Biological study); IMF (Preparation); RACT (Reactant)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
RN 136522-35-5 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

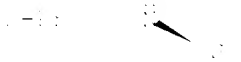
IT 216481-84-4P 216481-86-6P
PL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
RN 216481-84-4 HCAPLUS
CN Acetamide, N-[(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 216481-86-6 HCAPLUS
CN Butanamide, N-[(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 199395-80-7P 199395-81-8P 199395-82-9P
199395-84-1P 199395-85-2P 216481-83-3P
PL: BIP (Biological process); BPN (Biosynthetic preparation); IMF (Preparation); PUR (Purification); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); BIOL (Biological study); PROC (Process); RACT (Reactant)

RN [illegible] HCAPLUS
IN [illegible]

[illegible]

[illegible] NH [illegible] OH

IT 9014-06-6
RL: CAT (Catalyst use); USES (Uses)
multistep process for the prepn. of (1S,4R - and/or
1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol
RN [illegible] HCAPLUS
IN Amidase, penicillin (Cl [illegible] IN INDEX NAME

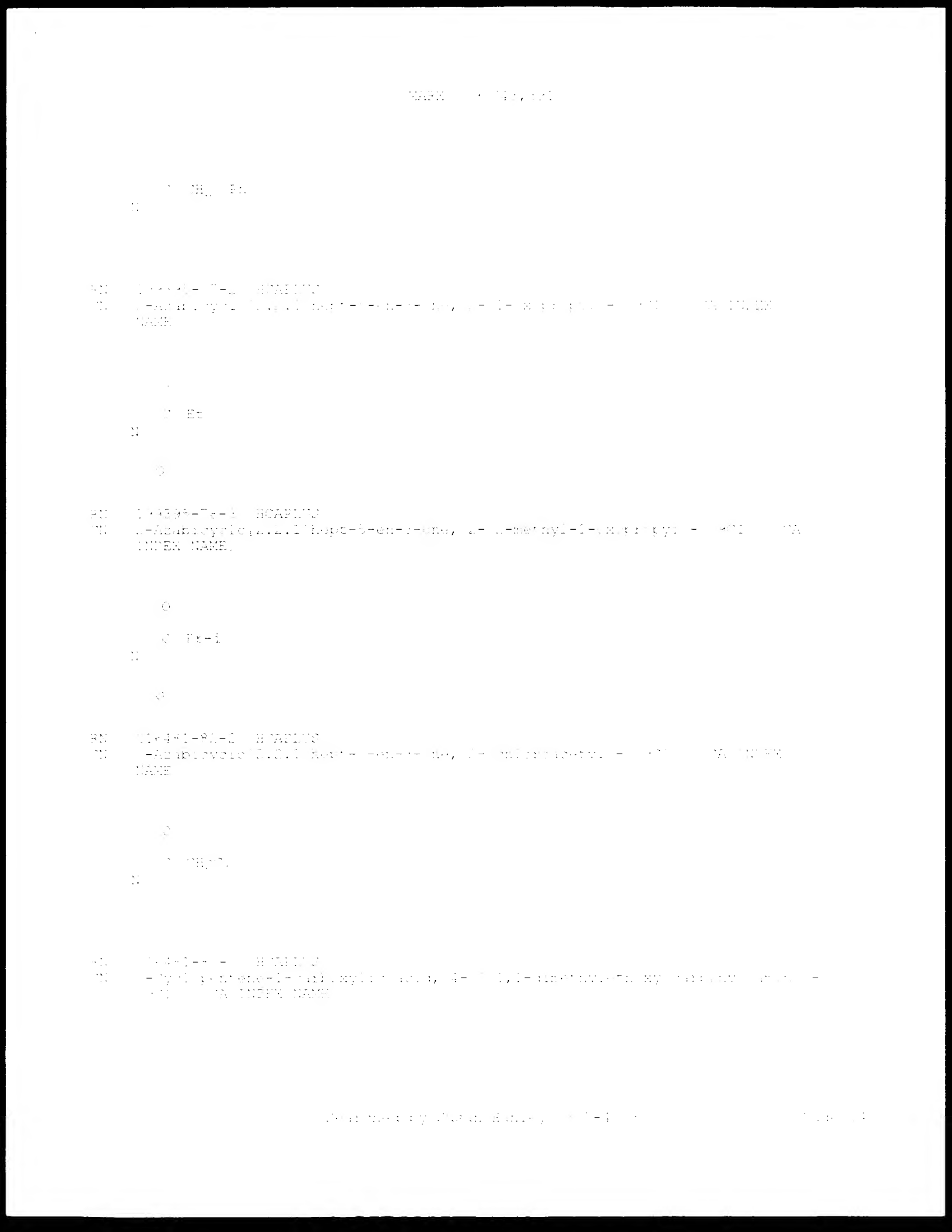
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 216481-82-2P
216481-87-7P
RL: PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
multistep process for the prepn. of (1S,4R - and/or
(1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol
RN 162307-09-7 HCAPLUS
IN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (CA INDEX NAME)

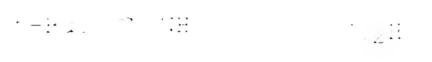
N
Ac

RN [illegible] HCAPLUS
IN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(1-oxobutyl)- (CA INDEX NAME)

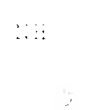
[illegible]

RN [illegible] HCAPLUS
IN [illegible] (CA INDEX NAME)





IT 49805-30-3, 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
RN [illegible] HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one [illegible] CA INDEX NAME)



IC ICM C12P017-18
ICS C12P013-02; C07C233-23; C07C231-18; [illegible]
ICI C12P017-18, C12R001-06; C12P017-18, C12R001-[illegible]; C12P017-18, C12R001-[illegible]; C12P017-18, C12R001-07; C12P017-18, C12R001-3[illegible]; C12P017-18, C12R001-11; C12P017-18, C12R001-1[illegible]
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): [illegible]
ST stereoselective aminochloropurinylcyclopentenemethanol synthesis
IT Alcaligenes
Bordetella
Gordonia (bacterium)
Rhodococcus
Rhodococcus erythropolis
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **9012-56-0P**, N-Acetylaminoalcohol **hydrolase**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(from Rhodococcus erythropolis)
IT **136522-33-3P 216481-88-8P**
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **168960-19-8P**
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)
IT **130931-86-1P 168960-18-7P 171887-04-0P 216481-85-5P**
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT 136522-35-5P
RL: BPN (Biosynthetic preparation ; RCT (Reactant ; SPN (Synthetic preparation); BSU (Biological study, unclassified); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT 216481-84-4P 216481-86-6P
RL: BPN (Biosynthetic preparation ; SPN (Synthetic preparation ; BSU (Biological study, unclassified); PREP (Preparation)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT 199395-80-7P 199395-81-8P 199395-82-9P
199395-84-1P 199395-85-2P 216481-83-3P
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT 9014-06-6
RL: CAT (Catalyst use); USES (Uses)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT 162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 216481-82-2P
216481-87-7P
RL: PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

IT 49805-30-3, 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(multistep process for the prepn. of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol

L1 ANSWER [illegible]

ACCESSION NUMBER: [illegible]

DOCUMENT NUMBER: [illegible]

TITLE: Process for the preparation of [illegible] and derivatives thereof

INVENTOR(S): Bernegger-Egli, Christine; [illegible]

PATENT ASSIGNEE(S): [illegible]

SOURCE: PCT Int. Appl., [illegible]

CODEN: [illegible]

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9745529	A1	19971204	WO 1997-EP2838	19970530
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, [illegible], SE, SG, SI, SK, [illegible], TM, TR, TT, [illegible], VN, YU, AM, AZ, BY, KG, KZ, MD, RU, [illegible], TM				
RW: GH, KE, LS, MW, [illegible], SZ, [illegible], AT, BE, CH, DE, [illegible], GR, IE, IT, [illegible], MC, NL, PT, SE, BF, BJ, CF, [illegible], ML, MR, NE, SN, TD, TG				
CA 2253977	AA	19971204	CA 1997-2253977	[illegible]
AU 9731705	A1	19980105	AU 1997-31705	19970530
EP 904348	A1	19990331	EP 1997-927092	19970530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1220695	A	19990623	CN 1997-195182	19970530
JP 2000512488	T2	20000926	JP 1997-541630	19970530
KR 2000016124	A	20000325	KR 1998-709691	19981128
US [illegible]	B1	[illegible]	US [illegible]	[illegible]

PRIORITY APPLN. INFO.: CH [illegible] A [illegible]; CH [illegible] A [illegible]; CH [illegible] A [illegible]; WO 1997-EP[illegible] W [illegible]

OTHER SOURCE(S): CASREACT [illegible]; MARPAT [illegible]

9012-56-0P, Amidase

azabicycloheptenones

136522-30-0P 136522-35-5P

azabicycloheptenones and microbial metab. of the products,

199395-80-7P 199395-81-8P 199395-82-9P
199395-83-0P 199395-84-1P 199395-85-2P

azabicycloheptenones

IT 9015-68-3, Asparaginase
RL: [illegible]
[illegible] azabicycloheptenones and microbial metab. of the products
RN [illegible] HCAPLUS
TN Asparaginase (9CI, 9CI) (CA INDEX NAME)

... STRUCTURE DIAGRAM IS NOT AVAILABLE ...
IT 49805-30-3, 2-Azabicyclo[...]hept-5-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
[illegible] azabicycloheptenones and microbial metab. of the products
RN [illegible] HCAPLUS
TN 2-Azabicyclo[2.2.1]hept-5-en-3-one (9CI) (CA INDEX NAME)

IT 162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 199395-79-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)
RN 162307-09-7 HCAPLUS
TN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

Ac

RN 199395-75-0 HCAPLUS
TN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(1-oxopropyl)- (9CI) (CA INDEX NAME)

RN [illegible] HCAPLUS
TN [illegible] (CA INDEX NAME)

[illegible]

RN [illegible] HCAPLUS
IN [illegible]-Azabicyclo[2.2.1]hept-5-en-2-one, 2-(1-oxopropyl)- (9CI) (CA INDEX NAME)

[illegible] Et

O

RN 199395-78-3 HCAPLUS
IN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

[illegible]

[illegible] Pr-i

O

RN 199395-79-4 HCAPLUS
IN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-[3-chloro-1-oxopropyl]- (9CI) (CA INDEX NAME)

[illegible]

[illegible] CH2 CH2 Cl

[illegible]

[illegible]

azabicycloheptenone;

(of N-acetylaminoalc. **hydrolase**

IT Aycobacterium
Aspergillus sydowii
Aureobasidium
Bacillus simplex
Fermentation
Intestinomonas
Rhodococcus
Rhodococcus erythropolis
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 9012-56-0P, Amidase
RL: BAC (Biological activity or effector, except adverse ; BAC (Biological activity or effector, except adverse ; BOC (Occurrence); BSU (Biological study, unclassified ; CAT (Catalyst use ; FBI (Properties); FDR (Purification or recovery ; FMOL (Biological study ; OCCT (Occurrence ; PREP (Preparation); USES (Uses
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 136522-30-0P 136522-35-5P
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation ; BIOL (Biological study ; PREP (Preparation
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 199395-80-7P 199395-81-8P 199395-82-9P
199395-83-0P 199395-84-1P 199395-85-2P
RL: BPR (Biological process); BSU (Biological study, unclassified ; RCT (Reactant); SPN (Synthetic preparation ; BIOL (Biological study ; PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 9015-68-3, Asparaginase
RL: CAT (Catalyst use); USES (Uses)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 49805-30-3, 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

IT 162307-09-7P 199395-75-0P 199395-76-1P
199395-77-2P 199395-78-3P 199395-79-4P
RL: RCT (Reactant ; SPN (Synthetic preparation ; PREP (Preparation ; RACT (Reactant or reagent)
(prepn. of amino alcs. and derivs. thereof from
azabicycloheptenones and microbial metab. of the products)

L51 ANSWER 1 OF 1 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

PUBLISHER:

DOCUMENT TYPE:

LANGUAGE:

OTHER

I II

AB The lipase-catalyzed asym. resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones was reported. Non-racemic chiral 2-azabicyclo[2.2.1]hept-5-en-3-ones were obtained conveniently by lipase-catalyzed enantioselective transesterification or hydrolysis of 2-(hydroxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-one or 2-(acetyloxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-one. The resoln. of 2-(hydroxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-one (I) gave (1R)-2-(acetyloxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-one which was hydrolyzed to give (1R)-2-(hydroxymethyl)-2-azabicyclo[2.2.1]hept-5-en-3-one. Ring opening of the latter gave (-)-(1S,3R,4R)-4-(acetylamino)-3-cyclopentene-1-carboxylic acid Me ester (II), which is an intermediate for carbocyclic

IT 157732-11-1P 183074-62-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones

RN 157732-11-1 HCAPLUS

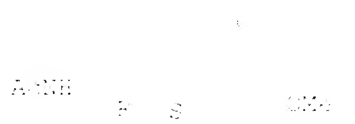
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-[(acetyloxy)methyl]-, (1R,4R)- (9CI)

(CA INDEX NAME)

Absolute stereochemistry.

IT 127061-46-5P, [illegible] acid methyl ester
RL: [illegible] ; PREP (Preparation)
[illegible]
RN [illegible] HCAPLUS
CN [illegible] acid, 4-(acetylamino)-, methyl ester, [illegible] (CA INDEX NAME)

Absolute stereochemistry.



=> d ind

L51 ANSWER 1 OF 1 HCAPLUS COPYRIGHT [illegible] ACS
CC 24-4 (Alicyclic Compounds)
Section cross-reference(s): [illegible]
ST azabicycloheptenone lipase enzymic [illegible];
[illegible] pentenecarboxylate amino [illegible]
azabicycloheptenone lipase enzymic [illegible]
IT Configuration
(abs., lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones)
IT **Resolution**
(**enzymic**, lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones)
IT 9001-62-1, Lipase
RL: CAT (Catalyst use); USES (Uses)
(lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones)
IT [illegible], 2-Azabicyclo[2.2.1]hept-5-en-3-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones)
IT [illegible]
[illegible] Hydroxymethyl [illegible]
157732-11-1P [illegible] 183074-62-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(lipase-catalyzed resoln. of 2-azabicyclo[2.2.1]hept-5-en-3-ones)
IT [illegible], Carbovir, [illegible] 127061-46-5P,
[illegible]
[illegible]
RL: SPN (Synthetic preparation); PREP (Preparation)
[illegible]

[illegible]

L52 ANSWER 1 OF 1 HCAPLUS [illegible]
ACCESSION NUMBER: [illegible]
DOCUMENT NUMBER: [illegible]
TITLE: [illegible] for preparing [illegible] N-derivatized [illegible]
INVENTOR(S): [illegible]son, [illegible]; [illegible]; Wallis, Christopher [illegible]
PATENT ASSIGNEE(S): [illegible] Limited, [illegible]
SOURCE: PCT Int. Appl., [illegible]
CODEN: [illegible]
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO [illegible]	A1	[illegible]	WO 1998-EP5291	19980820
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU [illegible]	A1	[illegible]	AU 1998-[illegible]	[illegible]
AU [illegible]	B2	[illegible]		
EP 1005903	A1	20000531	EP 1998-[illegible]	[illegible]
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9810472	A	20000919	BR 1998-[illegible]	[illegible]
JP 2001504354	T2	[illegible]	JP 1999-[illegible]	[illegible]
N[illegible]	A	[illegible]	N[illegible] 1999-[illegible]	[illegible]
[illegible]	B1	[illegible]	[illegible]	[illegible]

PRIORITY APPLN. INFO.: [illegible] A [illegible]
WO 1998-EP5291 W 19980820

OTHER SOURCE(S): CASREACT 130:[illegible]; MARPAT 130:[illegible]

[illegible]

AB [illegible] enzyme [illegible].

IT 168960-18-7P

RL: [illegible] PREP (Preparation)

[illegible]

RN [illegible]

CN [illegible]

[illegible]

[illegible]

1,1-[illegible] (CA INDEX NAME)

Absolute stereochemistry. Rotation [illegible].

[illegible]

IT 162307-09-7
RL: BPR (Biological process); BSU (Biological study, unclassified);
RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prepn. enantiomerically enriched N-derivatized lactams)
RN 162307-09-7 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- [illegible] (CA INDEX NAME)

[illegible]

Ac

IC ICM C12P041-00
ICS C12P013-00; C07D209-52
CC 16-2 (Fermentation and Bioindustrial Chemistry)
ST lactam azabicycloheptenone resoln **subtilisin**
IT Resolution (separation)
(biol.; prepn. enantiomerically enriched N-derivatized lactams)
IT 79200-56-9DP, N-protected
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. enantiomerically enriched N-derivatized lactams)
IT **168960-18-7P** [illegible]
RL: BPN (Biosynthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(prepn. enantiomerically enriched N-derivatized lactams)
IT [illegible]-9P
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepn. enantiomerically enriched N-derivatized lactams)
IT **162307-09-7** [illegible]
RL: BPR (Biological process); BSU (Biological study, unclassified);
RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prepn. enantiomerically enriched N-derivatized lactams)
IT [illegible], Lipase
RL: CAT (Catalyst use); USES (Uses)
(prepn. enantiomerically enriched N-derivatized lactams)
REFERENCE COUNT: [illegible] THERE ARE [illegible] CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

[illegible]

L54 ANSWER 1 OF 1 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE: Substrate specificity of glycinamide ribonucleotide transformylase from chicken liver

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several glycinamide ribonucleotide analogs have been prepd. and evaluated as substrates and/or inhibitors of glycinamide ribonucleotide transformylase from chicken liver. The side chain modified analogs, in which the glycine side chain, R = CH_2NH_2, has been replaced by R = CH_2NHCHO and R = $CH_2CH_2NH_2$, were substrates, with V/K relative intensities of 0.4 and 16.4, resp. Several carbocyclic analogs of glycinamide ribonucleotide, including the phosphonate deriv. of carbocyclic glycinamide ribonucleotide, did not serve as substrates, but were inhibitors of the **enzyme**, competitive against glycinamide ribonucleotide, with Ki values ranging from 7.4 to 23.6 times the Km for glycinamide ribonucleotide. However, the O-phosphonate analog of carbocyclic glycinamide ribonucleotide did support **enzymic** activity, with V/K relative intensity of 1.0. In addn., glycinamide ribonucleoside was neither a substrate for, nor an inhibitor of, glycinamide ribonucleotide transformylase. Furthermore, .alpha.-glycinamide ribonucleotide had no effect on **enzyme** activity. These studies indicate that neither the stereochemical integrity of the nucleoside substrate required for **enzymic** activity.

IT 127061-46-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)

RN 127061-46-5 HCAPLUS

CN 2-Cyclopentene-1-carboxylic acid, 4-[(ethylamino)-, methyl ester, (1R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 136522-35-5P

RL: BAC (Biological activity or effector); BSU (Biological study, unclassified); PREP (Preparation)

(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)

[illegible]

RN [illegible] REGISTRY
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT [illegible] Enzymes
Amino acids, [illegible]
IT Glycinamide ribonucleotide transformylase specificity liver
IT Kinetics, **enzymic**
Liver
Michaelis constant
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT Molecular structure-biological activity relationship
(phosphoribosylglycinamide formyltransferase-inhibiting, substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT [illegible]-02-4
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT 174518-93-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT [illegible], 174518-[illegible]
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT [illegible]-18-7, Glycinamide ribonucleotide
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT [illegible], 174518-[illegible]
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT [illegible]
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(substrate and inhibitor specificity of glycinamide ribonucleotide transformylase from chicken liver)
IT [illegible]
127061-46-5
RL: RCT (Reactant); [illegible]
([illegible])

[illegible]

136522-35-5P

; PREP

(Preparation);

L57 ANSWER 1 OF 2 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 926131	A2	19990630	EP 1998-122283	19981124
EP 926131	A3	20000322		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11228510	A2	19990824	JP 1998-337437	19981127
US 6448402	B2	20020910		
PRIORITY APPLN. INFO.:			CH 1997-2789 A	19971127
			CH 1997-2781 A	19971203

AB Title compds. were prepd. by metal hydride reduction of 2-azabicyclo[2.2.1]hept-5-en-3-ones.

IT 122624-72-0P 136522-30-0P 136522-35-5P
229177-39-3P 229177-46-2P 229177-49-5P
229177-52-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
prepn. of 4-amino-2-cyclopentene-1-methanols, 4-aminocyclopentenols and related intermediates

RN

CN

Relative stereochemistry.

RN [illegible] HCAPLUS
CN [illegible] 4-amino-, (1S,4R)- [illegible] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-) .

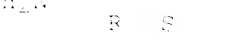
RN [illegible] HCAPLUS
CN [illegible] 4-amino- [illegible] (9CI) (CA INDEX NAME)

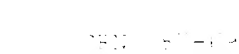
RN 2.9117-46-2 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 147021-80-5
CMF C7 H11 N O

Absolute stereochemistry. Rotation (-) .





RN [illegible] HCAPLUS
CN [illegible] (9CI) (CA INDEX NAME)

CM 1

CRN [illegible]
CMF C7 H11 N O

Absolute stereochemistry.

RN [illegible] HCAPLUS

[illegible]

RN [illegible]
CN [illegible]

FM [illegible]

FAN [illegible]
MF [illegible]

Absolute stereochemistry. [illegible]

FM 2

FAN 5[illegible]-69-4
MF C4 H6 O6

Absolute stereochemistry.

RN 226177-52-6 HCAPLUS
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)-, (2S,3S)-2,3-dihydroxybutanedioate (2:1) (salt) (9CI) (CA INDEX NAME)

FM 1

FAN [illegible]
MF [illegible]

Absolute stereochemistry. [illegible]

FM [illegible]

FAN [illegible]
MF [illegible]

Absolute stereochemistry.

IT 162307-09-7
RL: **RCT (Reactant)**; RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
RN [illegible] HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- [illegible] (CA INDEX NAME)

IC ICM C07C213-00
ICS C07C215-42; C07C213-02; C07C213-10; C07D473-32
CC 24-4 (Alicyclic Compounds)
ST aminocyclopentenemethanol enantiomer prepn drug intermediate
IT Alcohols, preparation
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(chiral, amino; prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT 61942-42-9P [illegible] 229177-44-[illegible]
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT **122624-72-0P** 130931-86-1P **136522-30-0P** 136522-33-3P
136522-35-5P 168960-18-7P 216481-85-5P 216481-88-8P
229177-39-3P 229177-46-2P 229177-49-5P
229177-52-0P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)
IT [illegible], Butyryl chloride [illegible], 2-Azabicyclo[2.2.1]hept-5-en-3-one [illegible], (-)-2-Azabicyclo[2.2.1]hept-5-en-3-one
162307-09-7 [illegible]
RL: **RCT (Reactant)**; RACT (Reactant or reagent)
(prepn. of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

[illegible]

[illegible] ANSWER [illegible] OF [illegible] HCAPLUS COPYRIGHT [illegible] ACS
ACCESSION NUMBER: [illegible] HCAPLUS
DOCUMENT NUMBER: [illegible]
TITLE: Stereoselectivity in addition of phenylselenyl chloride to bicyclo[2.2.1]hept-2-ene derivatives and synthesis of 6'-chloro substituted carbovir
AUTHOR(S): [illegible], Akemi; Nishimura, Akiko; [illegible]
CORPORATE SOURCE: Pharmaceutical Institute, [illegible] University, [illegible], Japan
SOURCE: Heterocycles [illegible]
CODEN: HTCYAM; ISSN: [illegible]-414[illegible]
PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT [illegible]

AB Addn. of phenylselenyl chloride to [illegible] was examd. and the stereoselectivities have been clarified. The adducts derived from 2-azabicyclo[2.2.1]hept-5-en-3-ones having an electron-withdrawing group at 2-position were converted to 6'-chloro substituted carbovir.

IT **200002-40-0**
RL: **RCT (Reactant);** RACT (Reactant or reagent)
(stereoselective addn. of phenylselenyl chloride to bicycloheptene derivs. and prepn. of chloro-substituted carbovir)

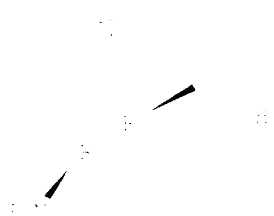
RN 200002-40-0 HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl-, (1S,4R)- [illegible] (CA INDEX NAME)

Absolute stereochemistry.

IT **200002-44-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation);** RACT (Reactant or reagent)
(stereoselective addn. of phenylselenyl chloride to bicycloheptene derivs. and prepn. of chloro-substituted carbovir)

RN [illegible]-44-4 HCAPLUS
CN [illegible]-1-methanol, [illegible] (CA INDEX NAME)

Absolute stereochemistry.



200002-40-0

RL: RCT (Reactant); RACT (Reactant or reagent)

200002-44-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

IT 200002-49-9P 200002-50-2P 200002-52-4P 200002-53-5P 200002-55-7P
200002-56-8P 200002-57-9P 200002-58-0P 200002-59-1P 200002-61-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

AB A simple and efficient process for the enantioselective resoln. [illegible] N-substituted 2-azabicyclo[2.2.1]hept-5-en-3-ones has been developed using [illegible] available hydrolytic enzymes. This offers a practical approach [illegible] the prepn. of enantiomerically [illegible] N-[illegible]
IT 162307-09-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
[illegible]
RN [illegible] HCAPLUS
CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- [illegible] INDEX NAME)

REFERENCE COUNT: [illegible] THERE ARE [illegible] CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 4 OF 9 HCAPLUS COPYRIGHT [illegible] ACS
ACCESSION NUMBER: 1998:[illegible] HCAPLUS
DOCUMENT NUMBER: 129:149[illegible]
TITLE: .alpha.-Fluorination of 6-phenylsulfinyl-2-azabicyclo[2.2.1]heptan-3-one and synthesis of 2'-fluoro substituted carbovir
AUTHOR(S): Toyota, Akemi; Nishimura, Akiko; Kaneko, Chikara
CORPORATE SOURCE: Pharmaceutical Institute, Tohoku University, Sendai, [illegible], Japan
SOURCE: Tetrahedron Letters [illegible]
CODEN: TELEAY; ISSN: [illegible]
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:149[illegible]
AB Fluorination of phenylsulfinyl bicycloamide using mol. fluorine proceeded preferentially with inversion of the carbon atom having the sulfinyl group to afford .alpha.-fluorinated sulfonyl bicycloamide in fair yield. The fluorinated sulfonyl bicycloamide was converted to 2'-fluoro substituted carbovir via reductive desulfonylchlorination.
IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(.alpha.-fluorination of phenylsulfinyl[illegible] and synthesis of [illegible])
RN [illegible] HCAPLUS
CN 2-Azabicyclo[2.2.1][illegible]

REFERENCE COUNT: [illegible]

AB Bicycloamides I (R = aryl, alkoxycarbonyl), useful as intermediates for cytaradine [antiviral agent], were prepd. Methanesulfonyl-2-azabicyclo[2.2.1]hept-5-en-3-one with 5-chloropentanoic acid gave 1 (R = Ac).

IT **162307-09-7P**

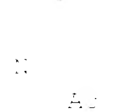
RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of bicycloamides as intermediates for carbocyclic nucleosides)

RN 162307-09-7 HCAPLUS

CN 2-Azabicyclo[2.2.1]hept-5-en-3-one, 2-acetyl- (9CI) (CA INDEX NAME)

CORPORATE SOURCE: Pharmaceutical Inst., Tohoku Univ., Sendai, [illegible], Japan
SOURCE: Tetrahedron Letters [illegible], [illegible], [illegible]
CODEN: TELEAY; ISSN: [illegible]
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT [illegible]
AB [illegible] activity, has been synthesized [illegible] in only seven steps. The method [illegible] epoxide by neighboring [illegible] participation.
IT 162307-09-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of the antiviral agent [illegible] from [illegible] via regioselective epoxide ring cleavage)
RN [illegible] HCAPLUS
CN [illegible]-Azabicyclo[[illegible]]hept-[illegible]-en-[illegible]-one, [illegible]-acetyl- [illegible] (CA INDEX NAME)

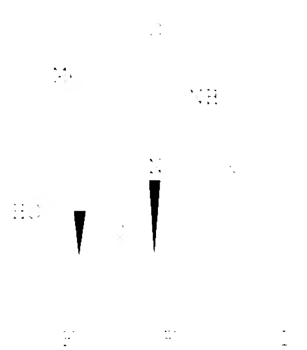


L62 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:771644 HCAPLUS
DOCUMENT NUMBER: 124:[illegible]
TITLE: Iodofluorination of [illegible]-azabicyclo[[illegible]]hept-[illegible]-en-[illegible]-ones and related compounds: regio- and stereoselectivities
AUTHOR(S): [illegible], Akemi; [illegible], Yoshinori; Kaneko, Chikara
CORPORATE SOURCE: Pharmaceutical Inst., Tohoku Univ., Sendai, [illegible], Japan
SOURCE: Tetrahedron Letters (1995), 36([illegible]), [illegible]
CODEN: TELEAY; ISSN: [illegible]
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:[illegible]
AB Iodofluorination of [illegible]-azabicyclo[[illegible]]heptenes and cyclopentenylamines with the NHR group in the allylic position and the regio- and stereoselectivity were studied.
IT 162307-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(regio- and stereoselectivity in iodofluorination of azabicyclo[[illegible]]heptenones and related compds.)
RN [illegible] HCAPLUS
CN [illegible]-Azabicyclo[[illegible]]hept-[illegible]-en-[illegible]-one, [illegible]-acetyl- [illegible] (CA INDEX NAME)

[illegible]

TITLE: [illegible] Addition [illegible] molecular fluorine [illegible] azabicyclo[2.2.1]hept-5-en-3-one and related compounds: synthesis of difluorinated carbocyclic nucleosides

AUTHOR(S): Toyota, Akemi; Aizawa, Megumi; Habutani, Chie; Katagiri, Nobuya; Kaneko, Chikara
CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, [illegible], Japan
SOURCE: Tetrahedron [illegible]
CODEN: TETRAB; ISSN: [illegible]
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:[illegible]
GI



AB [illegible]

162307-09-7

[illegible]

[illegible]

=> [illegible] abs fcrabref 1

L67 ANSWER 1 OF 4 CASREACT [illegible]

ACCESSION NUMBER: [illegible]

TITLE: Process for preparing [illegible] lactams

INVENTOR(S): Dawson, [illegible]; [illegible]; [illegible], Christopher [illegible]

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., [illegible] pp. [illegible]

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO [illegible]	A1	[illegible]	WO 1998-EP[illegible]	[illegible]
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, [illegible] DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, [illegible], KE, [illegible], KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9897386	A1	19990316	AU 1998-97386	19980820
AT 238897	B2	[illegible]		
EP 1003903	A1	[illegible]	EP 1998-951[illegible]	[illegible]
R: AT, BE, CH, DE, DK, ES, FR, [illegible] IE, SI, [illegible]				
BR [illegible]	A	[illegible]	BR 1998-[illegible]	[illegible]
JP 2001504354	T2	[illegible]	JP 1998-[illegible]	[illegible]
NO 9906368	A	[illegible]	NO 1999-6368	[illegible]
US 6340587	B1	[illegible]	US 2000-446587	[illegible]

PRIORITY APPLN. INFO.: GB 1997-17928 19970822; WO 1998-EP5291 19980820

OTHER SOURCE(S): MARPAT 130:208877

GI

AB [illegible] enzyme [illegible].

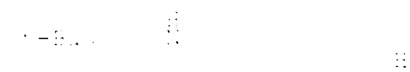
[illegible]

[illegible]

[illegible]

[illegible] I. [illegible], [illegible], IHF
I. [illegible]

[illegible]



REF: PCT Int. Appl., [illegible], [illegible] Mar [illegible]

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L67 ANSWER 1 OF 4 CASREACT COPYRIGHT [illegible] ACS
IC ICM C12P041-00
ICS C12P013-00; C07D209-52
CC 16-2 (Fermentation and Bioindustrial Chemistry)
ST lactam azabicycloheptenone resoln **subtilisin**
IT Resolution (separation)
(biol.; prepg. enantiomerically enriched N-derivatized lactams)
IT [illegible]-56-9DP, N-protected
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepg. enantiomerically enriched N-derivatized lactams)
IT 1[illegible]60-18-7P 1[illegible]098-29-1P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepg. enantiomerically enriched N-derivatized lactams)
IT [illegible]
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepg. enantiomerically enriched N-derivatized lactams)
IT [illegible]
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prepg. enantiomerically enriched N-derivatized lactams)
IT [illegible]-14-1, Savinase
RL: CAT (Catalyst use); USES (Uses)
(prepg. enantiomerically enriched N-derivatized lactams)

[illegible]

L7 ANSWER 1 OF 4 CASREACT COPYRIGHT [illegible] ACS
ACCESSION NUMBER: [illegible] CASREACT
TITLE: Process for the preparation of amino [illegible] and derivatives thereof
INVENTOR(S): [illegible]-Hall, Christine; Birch, [illegible] M.; Bossard, Pierre; Brieden, Walter; Brux, Frank; Burdorf, Knut; [illegible], Laurent; [illegible], [illegible]; [illegible], Yves; [illegible], Martin; [illegible], [illegible]
PATENT ASSIGNEE(S): Lonza A.-G., Switz.; [illegible]-Hall, Christine; Birch, [illegible] M.; Bossard, Pierre; Brieden, Walter; Brux, Frank; Burgdorf, Knut; [illegible], Laurent
SOURCE: PCT Int. Appl., [illegible] pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9745529	A1	19971204	WO 1997-EP[illegible]	[illegible]
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2253977	AA	19971204	CA 1997-2253977	19970530
AU 9731705	A1	19980105	AU 1997-317[illegible]	19970530
EP 904348	A1	19990331	EP 1997-[illegible]	19970530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1220695	A	19990623	CN 1997-195182	19970530
JP 2000512488	T2	20000926	JP 1998-541[illegible]	19970530
KR 2000016124	A	20000325	KR 1998-7[illegible]	19981126
US 6369850	B1	2002[illegible]409	US 1999-1[illegible]	19990[illegible]

PRIORITY APPLN. INFO.:
CH 1996-135[illegible] 19960530
CH 1997-2[illegible] [illegible]
CH 1997-[illegible] 19970418
WO 1997-EP2834 1997053[illegible]

OTHER SOURCE(S): MARPAT 128:32[illegible]
GI

NH R

[illegible]

enzymes

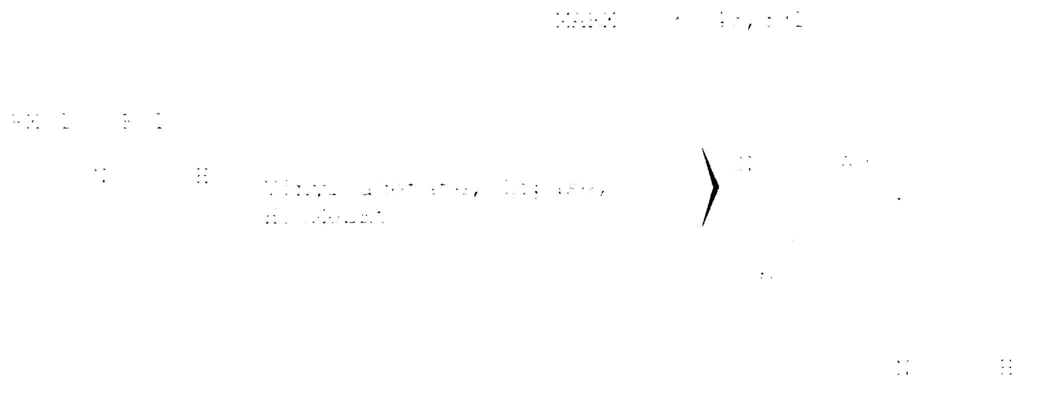
[illegible]

L[illegible] ANSWER [illegible] OF 4 MARPAT [illegible]
ACCESSION NUMBER: [illegible]
TITLE: Preparation [illegible] (5,6-dihydro-[illegible] [illegible] azabicyclo[3.2.1]hept-[illegible]-en-[illegible]-ones and analogs
INVENTOR(S): [illegible], Dominique; [illegible], [illegible]; [illegible], Isabelle; [illegible], Patrick; [illegible], [illegible]
PATENT ASSIGNEE(S): [illegible]
SOURCE: [illegible]
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703053	A1	1997013[illegible]	WO 1996-US11579	1996071[illegible]
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, [illegible], SG, SI				
RW: KE, [illegible]				
AU [illegible]	A1	[illegible]	AU 1996-[illegible]	[illegible]
PRIORITY APPLN. INFO.:			US 1995-4[illegible]	[illegible]
			WO 1996-US11579	[illegible]

OTHER SOURCE(S): MARPAT 126:1[illegible]
GI

AB Title compds. [I; R = H or acyl; R1,R2 = H or substituent; [illegible], CH2, (un)substituted alkylene, etc.; dashed line = optional bond] were prepd. Thus, [illegible]-azabicyclo[3.2.1]hept-[illegible]-en-[illegible]-one was treated with [illegible] to give I (R = H, R1 = R2 = H, [illegible] = CH2, dashed line = bond).



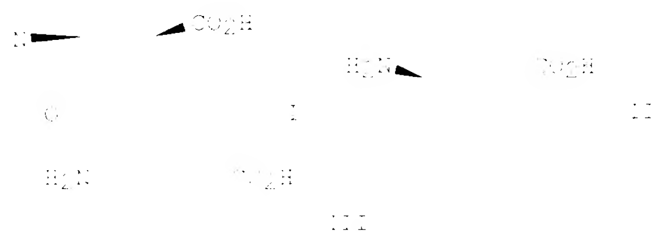
REF: [illegible] Int. Appl., [illegible]
NOTE: [illegible] transformation, enzymic, [illegible]

=> [illegible] ind 3

L67 ANSWER 3 OF 4 CASREACT COPYRIGHT 2002 ACS
IC ICM C07D221-02
ICS C07D265-04; [illegible]; [illegible]; [illegible]; [illegible];
C07D491-056
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
ST azabicycloheptenone hydroxymethyl; hydroxymethylation azabicycloheptenone
IT 157732-10-0P 157732-11-1P 157[illegible]-20-3P 183[illegible]4-[illegible]-[illegible]P 187675-95-2P
187675-96-3P 187675-97-4P 187675-98-5P 187675-99-6P 187676-00-2P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 2-(hydroxy- or acyloxymethyl)-2-azabicyclo[[illegible]]hept-[illegible]-en-[illegible]-ones and analogs)
IT [illegible]-76-4, 2,2-Dimethoxypropane [illegible], [illegible] chloride [illegible],
Butyryl chloride [illegible], 2-Azabicyclo[[illegible]]hept-[illegible]-en-[illegible]-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 2-(hydroxy- or acyloxymethyl)-2-azabicyclo[[illegible]]hept-[illegible]-en-[illegible]-ones and analogs)

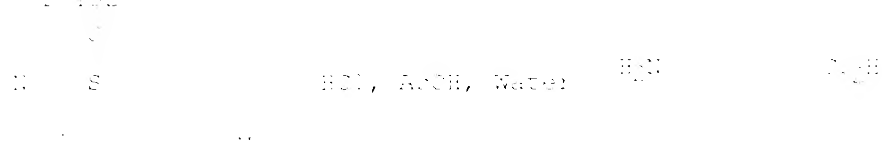
[illegible] ans for ref 4

[illegible]
[illegible] NUMBER: [illegible]
TITLE: [illegible] gamma.-Amino[illegible] acids [illegible] GABA. XV. Preparation and resolution of some potent cyclopentene and cyclopentane analogues
AUTHOR(S): Allan, Robin D.; Fong, Joyce
CORPORATE SOURCE: Dep. Pharmacol., Univ. Sydney, [illegible], Australia
SOURCE: Australian Journal of Chemistry [illegible]
CODEN: AJCHAS; ISSN: [illegible]
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB A series of cyclopentene and cyclopentane analogs of GABA were prepd. utilizing a thermal cis-trans isomerization of the [illegible] .beta.,.gamma.-unsatd. acid I as the key step to obtain trans-aminocyclopentenecarboxylic acid II. Resoln. of some of the potent GABA analogs, in particular (+)-(4S)- and (-)-(4R)-aminocyclopenetenecarboxylic acid III was achieved by crystn. of isopropylideneribonolactone esters or pantolactone esters of the phthalimido-protected intermediates.

RX [illegible]



REF: Australian Journal of Chemistry, [illegible]

[illegible]

[illegible]

[illegible]

IT [illegible]

IT [illegible]

IT [illegible] structure-biological activity [illegible]

GABAergic agonist, [illegible] aminocyclopentenecarboxylic [illegible]

IT [illegible]

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation by, [illegible] aminocyclopentenecarboxylic acid)

IT [illegible], reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(cycloaddn. reaction of, with tosyl cyanide)

IT [illegible]

RL: RCT (Reactant); RACT (Reactant or reagent)

(esterification of, with phthalimidocyclopentenecarboxylic acid chlorides)

IT [illegible]

RL: RCT (Reactant); RACT (Reactant or reagent

(esterification of, with phthalimidocyclopentenecarboxylic acid chlorides)

IT 19158-51-1P, Tosyl cyanide

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(generation and cycloaddn. reaction of, with cyclopentadiene)

IT 102629-73-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and GABAergic agonist activity of)

IT [illegible]

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and conversion of, to chiral esters)

IT 108999-99-1P [illegible]

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrazinolysis of)

IT [illegible]579-71-5P 102679-78-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrogenation of)

IT 108999-94-6P 108999-96-8P [illegible]-97-9P [illegible] [illegible]

109000-06-8P 109000-07-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrolysis of)

IT [illegible]

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

IT [illegible]

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn., [illegible], and conversion into chiral [illegible])

IT [illegible]

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn., hydrolysis, and [illegible] of)

IT [illegible]

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn., hydrolysis, [illegible])

IT [illegible]

RL: RCT (Reactant); RACT (Reactant or reagent)

US 097433910CP1

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No.	Doccode	Number of pages
1	IMIS	1
2	NPL	5
3	NPL	4

Total number of pages: 10

Remarks:

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